



Statement of Issues

13 December 2018

TPG Telecom – proposed merger with Vodafone

Purpose

1. TPG Telecom Limited (**TPG**) proposes to merge with Vodafone Hutchison Australia Pty Ltd (**VHA**) (the **proposed merger**).
2. This Statement of Issues:
 - gives the preliminary views of the Australian Competition and Consumer Commission (**ACCC**) on competition issues arising from the proposed acquisition;
 - identifies areas of further inquiry; and
 - invites interested parties to submit comments and information to assist our assessment of the issues.

Overview of ACCC's preliminary views

3. The legal test which the ACCC applies in considering the proposed acquisition is in section 50 of the *Competition and Consumer Act 2010*. Section 50 prohibits acquisitions that would have the effect, or be likely to have the effect, of substantially lessening competition in any market.
4. The ACCC divides its preliminary views into three categories, 'issues of concern', 'issues that may raise concerns' and 'issues unlikely to raise concerns'.

Issues of concern

Competition for retail supply of mobile services

5. The ACCC is concerned that the proposed merger will substantially lessen competition in the market for retail mobile services nationally.
6. The ACCC's preliminary view is that the proposed merger will result in a more concentrated and less competitive market by removing TPG as a strong

competitor. The ACCC considers that without the merger, TPG would likely adopt an aggressive pricing strategy, offering cheap plans with large data allowances.

Issues that may raise concerns

Competition for wholesale supply of mobile services

7. The ACCC is concerned that the proposed merger may substantially lessen competition in the market for wholesale mobile services nationally.
8. The ACCC's preliminary view is that the removal of TPG as a fourth mobile network operator (**MNO**) may result in:
 - higher prices for wholesale services; and
 - more restrictive conditions for wholesale customers,than there would be in the absence of the proposed merger.

Competition for retail fixed broadband services

9. The ACCC is concerned that the proposed merger may substantially lessen competition in the market for the supply of retail fixed broadband services nationally.
10. The ACCC is considering whether the removal of Vodafone as a potentially significant competitor for the supply of retail fixed broadband services may result in:
 - higher prices for retail fixed broadband services; and
 - lower quality services including lower data inclusions or poor performance,than there would be in the absence of the proposed merger.

Competition for retail home broadband services in the longer term

11. The ACCC is also considering whether when 5G mobile technology becomes commercially available in the near future, TPG and VHA may, in the absence of the merger, compete in a market for retail broadband services using either mobile or fixed networks (**retail home broadband services**). In this case, the proposed merger may substantially lessen competition in that market.

Making a submission

12. The ACCC is seeking submissions from interested parties, particularly on the following key issues:
 - the extent to which wholesale and retail customers consider a geographically limited network, such as that proposed by TPG, as a viable alternative to existing mobile networks

- the extent to which TPG and Vodafone would be likely to compete against each other in either or both of mobile and fixed services, absent the merger
 - whether the proposed merger is likely to limit the options available to mobile virtual network operators (**MVNOs**) seeking end-to-end wholesale mobile services
 - any particular advantage that Vodafone may have in relation to providing retail home broadband services compared to other new entrants.
13. Detailed discussion of these and other issues, along with specific questions, is contained in this Statement of Issues.
14. Interested parties should provide submissions by no later than 5pm on 18 January 2019. Responses may be emailed to TPG-Vodafone-Mergers@acc.gov.au with the title: Submission re: TPG/Vodafone - attention Morgan Woodland/Rachel Goldfeld. If you would like to discuss the matter with ACCC officers over the telephone or in person, or have any questions about this Statement of Issues, please contact Morgan Woodland on 02 9230 9194 or Rachel Goldfeld on 03 9290 1438.
15. The ACCC anticipates making a final decision on 28 March 2019, however this timeline can change. To keep abreast of possible changes in relation to timing and to find relevant documents, interested parties should visit the Mergers Register on the ACCC's website at www.accc.gov.au/mergersregister.

Confidentiality of submissions

16. The ACCC will not publish submissions regarding the proposed acquisition. We will not disclose submissions to third parties (except our advisors/consultants) unless compelled by law (for example, under freedom of information legislation or during court proceedings) or in accordance with s155AAA of the *Competition and Consumer Act 2010*. Where the ACCC is required to disclose confidential information, the ACCC will notify you in advance where possible so that you may have an opportunity to be heard. Therefore, if the information provided to the ACCC is of a confidential nature, please indicate as such. Our [Informal Merger Review Process Guidelines](#) contain more information on confidentiality.

About ACCC 'Statements of Issues'

17. A Statement of Issues published by the ACCC is not a final decision about a proposed acquisition, but provides the ACCC's preliminary views, drawing attention to particular issues of varying degrees of competition concern, as well as identifying the lines of further inquiry that the ACCC wishes to undertake.
18. A Statement of Issues provides an opportunity for all interested parties (including customers, competitors, shareholders and other stakeholders) to ascertain and consider the primary issues identified by the ACCC. It is also intended to provide the merger parties and other interested parties with the basis for making further submissions should they consider it necessary.

Timeline

Date	Event
24 September 2018	ACCC commenced review under Merger Process Guidelines.
13 December 2018	ACCC publication of Statement of Issues
18 January 2019	Deadline for submissions from interested parties in response to this Statement of Issues
28 March 2019	Anticipated date for ACCC final decision

The parties

TPG

19. TPG provides telecommunications services, including:
- retail fixed broadband and voice services to consumers, small business, government, enterprises and wholesale customers on legacy networks, the NBN and its own fibre-to-the-basement network (**FTTB**)
 - retail mobile services as an MVNO
 - wholesale services, such as transmission and NBN aggregation services, to other telecommunications service providers.
20. TPG's key retail brands are TPG, iiNet, and Internode.¹ TPG has approximately 1.9 million retail fixed broadband subscribers, half of which remain on ADSL, which are split approximately evenly between the TPG and iiNet brands.
21. TPG supplies mobile services as an MVNO on Vodafone and Optus's mobile networks and has approximately 421,000 mobile subscribers. In 2017, TPG announced plans to become an MNO and commenced building its own mobile network.

Vodafone

22. Vodafone is the third largest telecommunications provider in Australia. Vodafone is a 50:50 joint venture between Vodafone Group Plc and Hutchison Telecommunications (Australia) Limited. Vodafone is a privately owned entity, although the ultimate shareholders in Vodafone are publicly listed entities on the Hong Kong Stock Exchange and London Stock Exchange.

¹ TPG's other retail brands and subsidiaries include Adam Internet, AAPT, Westnet, TransACT, Pipe Networks, Netspace, Agile Communications and Chime Communications.

23. Vodafone owns and operates its own 3G and 4G mobile network, which reaches nearly 97 per cent of the Australian population (this includes additional coverage provided under a domestic roaming agreement with Optus in isolated, regional areas). The physical geographic coverage of Vodafone's own network is approximately half that of Optus and one quarter that of Telstra.
24. Vodafone also supplies wholesale mobile services to MVNOs for resale, including to TPG.
25. In October 2016, Vodafone announced its intention to begin offering retail fixed broadband services over the NBN and commenced supplying services in December 2017, mostly in metropolitan areas. Vodafone is now connected to 91 of the 121 NBN Points of Interconnection (**POI**).

Other industry participants

Telstra

26. Telstra is the largest supplier of fixed and mobile voice and broadband services in Australia, with the largest number of subscribers in both services.
27. Telstra owns and operates the legacy copper network which is used to supply both fixed voice and broadband services. This network is being decommissioned and replaced with the NBN, owned and operated by NBN Co. Telstra acquires wholesale services from NBN Co and has the largest number of wholesale services in operation on the NBN. Telstra also supplies NBN wholesale aggregation services to smaller retail service providers.
28. Telstra also owns and operates its own mobile network, which it claims to cover 99.3 per cent of the Australian population. Telstra is a premium brand, but also targets cost-conscious consumers through its own low cost brands, Belong and Boost. Telstra supplies wholesale end-to-end mobile services to MVNOs on its network, including Aldi and Woolworths.
29. Telstra owns and operates an extensive transmission network that supports its fixed and mobile services. It also supplies wholesale transmission services to other service providers.

Optus

30. Optus supplies fixed and mobile voice and broadband services. Optus has the second largest number of subscribers in mobile services, and the third largest number of subscribers in fixed voice and broadband services.
31. Optus acquires wholesale fixed voice and broadband services from NBN Co and wholesale services from Telstra to supply retail fixed voice and broadband services over Telstra's legacy copper network. Optus has the third largest share of wholesale services in operation on the NBN. Optus also supplies NBN wholesale aggregation services to smaller retail service providers.
32. Optus owns and operates its own mobile network, which it claims to reach 98.5 per cent of the Australia population. Optus sells retail mobile services and supplies wholesale end-to-end mobile services to MVNOs, including Amaysim. Optus also has several retail brands, including Virgin Mobile.

33. Optus also owns and operates its own transmission network, and supplies wholesale transmission services to other service providers.

NBN Co

34. NBN Co has a mandate to supply wholesale-only high-speed broadband access services to replace Telstra's legacy copper network. The NBN will reach all Australians using a mix of access technologies, including fibre, fixed wireless and satellite. As part of its mandate, NBN Co must supply wholesale broadband access to all service providers on equal terms, in order to promote retail competition.
35. In addition to NBN Co, other next generation fibre network operators include OptiComm, OPENetworks, RedTrain, LBN Co and TPG. These operators typically deploy their networks in apartment buildings and/or new housing estates and tend to operate as local monopoly networks.

Vocus

36. Vocus Group Limited (**Vocus**) provides retail and wholesale telecommunications services across Australia. Vocus owns its own transmission network which connects all capital cities and most regional cities across Australia. Vocus supplies wholesale transmission services to retail service providers.
37. Vocus acquires wholesale access services from NBN Co, and has the fourth largest share of wholesale services in operation on the NBN. Vocus also acquires wholesale services from Telstra to deliver retail legacy voice and broadband services.
38. Vocus owns a number of retail and wholesale brands, including M2, iPrimus, Dodo, Eftel, Club Telco, NextGen Networks, Amnet, Commander, Engin and Southern Cross Telco.
39. Vocus does not have its own mobile network, but sells retail mobile services (as an MVNO) through its retail brands, such as Dodo.

Mobile virtual network operators (MVNOs)

40. MVNOs acquire wholesale end-to-end mobile services from mobile network operators (Telstra, Optus, or Vodafone) and re-sell the mobile service under their own brands.
41. In addition to providing mobile phone services, mobile networks can be used to provide mobile broadband services on smartphones, dongles, tablets and portable modems.
42. There are currently around 90 MVNOs in the Australian market, including Amaysim and TPG, which make up approximately 10 per cent of mobile phone subscribers in Australia.

Industry background

Mobile networks

43. A mobile network has three primary components: consumer devices, a radio access network and a core network.
44. The radio access network consists of base stations (mobile towers) which are connected to the rest of the network via transmission links (also known as backhaul). These can be wireless (microwave) links, but are now more commonly fibre.
45. A base station uses radio frequency spectrum to communicate between the consumer device and the core network. A base station provides mobile coverage to an immediate geographic area called a cell. Importantly, in a mobile network, mobile devices will maintain connectivity with the network as the end-user (or device) moves between cells (inter-cell handover).
46. The size of cells differ. Large cells are called macro cells, which are served by large, high-powered base stations that provide coverage over a large area. Small cells provide coverage over a small area and are used to either complement large cells to improve coverage, add targeted capacity or provide coverage inside buildings or in hard-to-reach areas. Radio frequency spectrum characteristics also have implications for the sizes of cells. Generally, the higher the frequencies, the smaller the cell.
47. The core network connects the different parts of the access network, connects to other networks and undertakes billing and user management.
48. New generations of mobile phone technology have seen the capacity and capabilities of mobile networks increase significantly. The next generation, 5G (discussed in more detail below), will result in improved speeds and reduced latency for users as well as significant efficiencies for operators. 5G will make use of much higher radio frequency spectrum that will have implications for the size of cells. Smaller cells will be needed which will require a significant amount of new network deployment.
49. Spectrum is a scarce resource and essential input in the supply of mobile services. It contributes to the quality of service and coverage of a mobile network, as well as the capacity of the network. Without sufficient spectrum, a mobile network will not be able to function.
50. Mobile networks are increasingly flexible in that they can be used to support a range of communications services including mobile phone services, mobile broadband services and fixed/home wireless broadband services.
51. There are currently three mobile networks in operation in Australia, owned by Telstra, Optus and Vodafone, which use 3G and 4G mobile technology. Telstra and Optus have announced plans to deploy 5G mobile networks in 2019.
52. All three MNOs are vertically integrated and provide both wholesale and retail mobile phone and broadband services.

53. In addition to mobile phone services, dedicated mobile broadband services are delivered using mobile networks to tablet devices or portable 4G Wi-Fi modems.
54. These services have a dedicated data SIM card and do not offer call or SMS services like mobile phone services. Retail service providers market these services as mobile broadband services or home wireless broadband services.

Fixed line networks

55. Fixed line networks are characterised by a wired connection to end-user premises and can use a variety of technologies. Fixed line networks can be used to supply fixed voice and broadband services to an end-user premises.
56. In Australia, there are a number of fixed line networks in operation including legacy copper (Telstra) and hybrid fibre coaxial (**HFC**) networks (Telstra and Optus), and next-generation fibre networks such as the NBN (NBN Co) and non-NBN fibre networks (OptiComm, OPENetworks, TPG FTTB).
57. The NBN will be the predominant fixed line network once its rollout is complete and the legacy copper and HFC networks are de-commissioned. The NBN currently uses a range of technologies including fibre-to-the premises, fibre-to-the-node, fibre-to-the-curb, fibre-to-the-basement, HFC and in regional areas, fixed wireless and satellite.
58. NBN Co is a wholesale-only service provider and supplies wholesale access services to NBN retail service providers, such as Telstra, Optus, TPG (including iiNet and Internode), Vocus Group (including Dodo and iPrimus), and Vodafone.
59. As at 22 November 2018, the NBN was available to around 9 million Australian homes and businesses, of which 4.6 million premises had an active NBN service.²

Transmission networks

60. Transmission networks provide a link between the core network, and the exchange point to the access network, such as the mobile base station or NBN point of interconnection.
61. Services supplied over these networks are known as transmission services or backhaul. Transmission services carry the voice, data and video traffic generated by retail fixed and mobile voice and broadband services, and are an essential input into the supply of these retail services.
62. A number of different technologies can be used in transmission networks, including optical fibre, dark fibre, copper cables or microwave links.
63. Transmission network operators provide wholesale transmission services to retail service providers to enable the supply of voice and broadband services to end-users. There are a number of transmission network operators in Australia, including Telstra, Optus, TPG (through AAPT) and Vocus, who supply wholesale transmission services to retail service providers.

² <https://www.nbnco.com.au/content/dam/nbnco2/2018/documents/weekly-progress-reports/22112018.pdf>

64. The ACCC currently regulates transmission services in some areas where there are less than three competing transmission providers. The regulated transmission service is called the Domestic Transmission Capacity Service.

Future industry trends

5G mobile technology

65. 5G is the next generation of mobile technology and is designed to support faster speeds, higher data traffic and ultra-low latency.
66. 5G networks will build on current 4G networks and are expected to launch globally by 2020. With the introduction of 5G networks, mobile services are expected to deliver speeds that match or exceed existing fibre broadband services.
67. The deployment of 5G networks is expected to have wide-spread economic benefits for consumers, and industry. At present, there are three main use cases anticipated for 5G: enhanced mobile broadband, ultra-reliable, low latency wireless communications, and massive machine-to-machine communications. However, 5G is anticipated to bring many new services and applications in the future, as well as a more diverse range of suppliers, beyond traditional telecommunications companies.

Fixed-mobile substitution

68. Fixed-mobile substitution occurs when a consumer replaces a fixed voice and/or broadband service with a mobile voice and/or broadband service.
69. Substitution can occur to varying degrees, for example, in some cases, consumers may give up their fixed service and use mobile services exclusively. Alternatively, consumers may continue to purchase both a fixed and mobile service, but use their mobile service more than their fixed service.
70. In Australia, there has been a trend towards voice substitution for a number of years. In June 2017, 36 per cent of Australian adults were mobile-phone only and did not have a fixed-line telephone at home.³
71. The extent of substitution from fixed broadband to mobile broadband is influenced by consumer demand for data, and preference for price and speed. While there is some substitution currently, this is anticipated to increase in the future as mobile network technology evolves.
72. There are a growing range of mobile broadband services available in the market, such as home wireless broadband services that use a portable modem with a SIM. These offer larger data inclusions for lower prices than in the past.
73. In particular, with the deployment of 5G mobile technology bringing higher data capacity and speeds, it is anticipated that these mobile broadband offerings will be able to offer comparable service quality, speeds and data inclusions to fixed

³ ACMA Communications Report 2016-1, pg. 4. <https://www.acma.gov.au/-/media/Research-and-Analysis/Report/pdf/Communications-report-2016-17-pdf.pdf?la=en>

line broadband services, making them more attractive to a broader range of consumers.

Network convergence

74. There are many definitions and degrees of convergence, for example, service convergence (such as bundling), device convergence (such as mobile phones with Wi-Fi handoff capability), and network convergence (where fixed and mobile services share a common IP transport network).
75. Network convergence refers to the use of different access technologies, both fixed and mobile, on a single network. A customer has a seamless service experience using a combination of fixed broadband and mobile technologies to meet their needs at home and on the go. For example, a customer may use a network-provided Wi-Fi hotspot in the CBD, mobile connectivity on a commute, and a fixed line network at home all on the one device. The customer's device will connect seamlessly to all these access points.
76. Seamless experience typically refers to 'seamless handover' between the networks. For example, a call in progress can move from the mobile network to the fixed network on the same phone without interruption. One example of this is Voice over Wi-Fi calls, where a mobile device switches to making voice calls over Wi-Fi rather than using the mobile network.
77. There is a degree of network convergence occurring in Australia whereby mobile network operators, Vodafone and Telstra, provide an NBN fixed broadband service with 4G mobile backup capability. This enables the service provider to supply a fixed broadband service to the consumer over a fixed or mobile network. We understand that at present, this mobile backup will only occur in the event of a blackout or NBN outage, however it affords the service provider the opportunity to use either network to deliver the broadband service if desired.

The proposed transaction

78. On 30 August 2018, TPG and VHA announced their intention to merge their businesses. Under the proposed merger, TPG shareholders will collectively own 49.9 per cent of the merged entity and VHA shareholders will collectively own the remaining 50.1 per cent.
79. The proposed merger will be implemented by way of a Scheme of Arrangement. Following the completion of the Scheme of Arrangement, the merged entity will be listed on the ASX and will be named 'TPG Telecom Limited'.

Areas of overlap

80. TPG is primarily a supplier of retail fixed broadband services and has commenced rolling out its own mobile network, to supply mobile services. Vodafone operates its own mobile network and is primarily a supplier of mobile services, and has commenced supplying retail fixed broadband services on the NBN. There are therefore three areas of actual or potential overlap between the merger parties:
 - the supply of retail fixed broadband services;

- the supply of retail mobile phone and broadband services; and
- the supply of wholesale mobile services.

Future with and without the acquisition

81. Section 50 of the Act prohibits mergers or acquisitions that would have the effect or be likely to have the effect of substantially lessening competition in a market. In assessing a proposed acquisition pursuant to section 50 of the Act, the ACCC considers the effects of the acquisition by comparing the likely future state of competition if the acquisition proceeds (the “with” position) to the likely future state of competition if the acquisition does not proceed (the “without” position) to determine whether the proposed acquisition is likely to substantially lessen competition in any relevant market.
82. If the proposed merger does not proceed, the ACCC considers TPG and Vodafone will continue to compete as separate entities. The ACCC is also considering the future ‘without’ position in the context of TPG and Vodafone potentially sharing the 3.6 GHz spectrum under their current joint venture (**JV**) agreement, pursuant to the ACMA auction in November 2018.
83. The parties have proposed to possibly expand their JV agreement and the ACCC is assessing the competitive effects of this broader JV separately.

Market definition

84. The ACCC’s starting point for defining relevant markets to assess the competitive effects of the proposed merger involves identifying the products actually or potentially supplied by the merger parties. The ACCC then considers what other products constitute sufficiently close substitutes to provide a significant source of constraint on the merged entity.
85. The ACCC is considering the impact of the proposed merger on competition in the markets for the supply of:
 - retail mobile services in metropolitan areas or nationally
 - wholesale mobile services nationally
 - retail fixed broadband services to households and/or businesses nationally.
86. The ACCC is also considering whether and how the adoption of 5G mobile technology will impact on the scope or nature of the relevant markets, potentially leading to a retail home broadband services market, including fixed and mobile broadband services.
87. Questions relating to customer and supplier substitution, and the geographic scope of the relevant markets, are explored below.

Market for the supply of retail mobile services

88. The ACCC is concerned that the proposed merger will substantially lessen competition for the supply of retail mobile services in metropolitan areas or nationally.

Product/service dimension

89. Mobile networks can be used to access the internet, make calls and send SMS messages. There are two types of retail mobile services currently offered to consumers over mobile networks in Australia:
- **Mobile phone services**, which include a bundle of voice, SMS and broadband data services
 - **Mobile broadband services**, which are a subset of mobile phone services, being broadband data services but not voice or SMS services – these broadband data services are provided over a 3G or 4G network which a consumer can use with a tablet, dongle or portable 4G Wi-Fi modem that connects to a consumer device.
90. The ACCC has previously considered there are separate markets for mobile phone services and mobile broadband services. However, the ACCC is considering whether it is appropriate to include both mobile phone services and mobile broadband services in the same market.
91. From a functional or end-user perspective, mobile phone services are used for different purposes than mobile broadband services. Consumers use mobile phone services to make calls, send SMS messages and access the internet. Consumers use mobile broadband services to access the internet only.
92. However, there is growing demand for retail mobile phone plans with significant data inclusions. We also note the emergence and take-up of over-the-top (OTT) voice and messaging services delivered over the internet. OTT voice and messaging services, such as Skype and WhatsApp, are displacing traditional voice and messaging services for some consumer segments.⁴
93. There are technical limitations to using OTT services on a mobile broadband service for calls and messaging, such as the lack of interconnectivity between apps, and the inability to call 13/1300/1800 numbers or make emergency calls (with the exception of Skype). This means that OTT voice services are unable to offer the same level of functionality as traditional voice services available via mobile phone services.
94. From a supplier's perspective, a single mobile network is capable of supplying both mobile broadband services and mobile phone services, provided the supplier has the relevant interconnection agreements in place to allow for voice and SMS functionality.

Geographic dimension

95. Consumers primarily use their mobile phones close to where they live, work and shop. Therefore, consumers will often purchase their mobile services from service providers which offer good local coverage.
96. Currently, mobile services are priced on a uniform basis nationally and can be used by consumers across most cities and regional centres. Without a domestic

⁴ ACCC, 'Communications Sector Market Study – Final Report', April 2018, p. 20.

roaming agreement, TPG's planned mobile network will only have geographic coverage in metropolitan centres.

97. The ACCC's Domestic Mobile Roaming Declaration Inquiry found that geographic coverage is not the primary driver of competition. Therefore, it is not essential for MNOs to have the same geographic coverage to be able to compete effectively in the national supply of retail mobile services.⁵ For example, Vodafone is able to compete closely with both Optus and Telstra despite its more limited geographic coverage. However, Vodafone's network covers 95.3 per cent of the population and Vodafone has a domestic roaming agreement with Optus, whereas TPG's planned mobile network will only cover 80 per cent of the population.
98. It is also possible that TPG's entry into metropolitan regions may disrupt uniform national pricing such that incumbent MNOs price more aggressively in areas where TPG has coverage.
99. At this stage, the ACCC considers that the appropriate geographic dimension of the relevant market is likely to be national. However, competitive dynamics may differ between metropolitan and regional areas, and the effect of TPG's entry may be more pronounced in metropolitan areas.
100. The ACCC is considering whether the state of competition and nature of available services differ depending on where the services are delivered such that it is appropriate to classify a market for mobile services in metropolitan areas as distinct from a national market.

Market for the supply of wholesale mobile services

101. The ACCC is considering whether TPG would supply wholesale end-to-end mobile services to MVNOs once its mobile network is rolled out, and the extent to which TPG would compete effectively against the incumbent MNOs in the wholesale mobile services market.
102. Wholesale end-to-end mobile services are only available from MNOs. MVNOs commercially negotiate wholesale arrangements with the MNOs to enable them to supply retail mobile services.
103. The ACCC's preliminary view is that there is a separate national market for the supply of wholesale mobile services to MVNOs. However, as with the market for retail mobile services, the ACCC is considering whether the appropriate geographic scope of the market (or markets) is metropolitan.

Market for the supply of retail fixed broadband services

Product service dimension

Retail fixed broadband services

104. As discussed in the industry background section above, a retail fixed broadband service involves high speed data transmission to homes and businesses (i.e. to a fixed location). These services can either be delivered over the fixed line

⁵ ACCC, 'Domestic Mobile Roaming Declaration Inquiry – Final Report', October 2017, p 2.

network (copper or fibre optic cable) or over the mobile network (a wireless service).

105. Retail fixed broadband services include broadband services delivered from a mobile tower to a stationary device, like an antenna. The ACCC considers that these services are distinct from mobile broadband services (as defined in paragraph 89) because the service is being delivered to a fixed location.
106. The ACCC's preliminary view is that there are separate product markets for fixed broadband services and mobile broadband services. However, as discussed above, there is the potential for increasing substitution between these services, particularly in the longer-run, as discussed further under paragraph 178.

Customer type and size

107. The information before the ACCC suggests that different customer types have different demand characteristics for their consumption of retail fixed broadband services.
108. Government or enterprise customers typically acquire broadband services, either from a broker or directly from one of the telecommunications companies. These customers also typically have much larger data requirements and require broadband services in multiple locations across Australia.
109. Residential customers typically have less structured purchasing requirements and are less likely to require a bundled product. While many residential customers seek high-speed fixed line connections with large data inclusions, there are some residential customers with lower speed and data requirements that may only require a mobile broadband service.
110. The ACCC is of the preliminary view that given the limited overlap in supplying retail fixed broadband services to government or enterprise customers, the relevant market for assessing the potential impact of the proposed merger is likely to be the market for the supply of retail fixed broadband services to residential customers.

Geographic dimension

111. For most residential customers, mobile broadband services would not currently be an adequate substitute due to the speed and data limits, so these customers would typically require fixed broadband services at their premises.
112. However, retail fixed broadband service providers with national brands compete nationally for customers and typically adopt a national approach to setting prices and service levels. Therefore, the ACCC's preliminary view is that the relevant geographic market is national.

The ACCC invites comments from market participants on its preliminary views about the definition of the relevant market(s). In particular, market participants may wish to comment on:

Mobile services

- the extent to which consumers use OTT voice and messaging services instead of mobile phone voice and SMS services

- the factors that contribute to uniform pricing for mobile services and whether uniform pricing is likely to continue in the future, whether or not the proposed merger proceeds
- the extent to which there may be separate, metropolitan markets for the supply of mobile services across Australia
- the likelihood of MNOs and MVNOs offering different pricing and plans in metropolitan areas as distinct from regional areas, and if this is the case, how the boundaries of metropolitan areas should be determined
- whether the geographic scope of the wholesale market should be the same as the retail market

Fixed broadband services

- the extent to which customers would switch to a mobile broadband service from a fixed broadband service, and for those customers who would switch, the relevant data usage threshold for defining different fixed broadband customer segments, in particular 'low' data users. Are low data users more likely to consider a mobile broadband service as a substitute for fixed broadband services compared to high data users?
- whether it is appropriate to distinguish between fixed broadband services and mobile broadband services delivered to a fixed location
- the extent to which government and enterprise customers are likely to procure retail fixed broadband services differently to residential customers
- the factors that drive uniform pricing for mobile services and whether uniform pricing is likely to continue in the future.

Issue of concern: loss of competition for retail mobile services

113. The ACCC's preliminary view is that the proposed merger will substantially lessen competition by removing TPG as an aggressive competitor in the supply of retail mobile services. This would likely result in higher prices and lower service levels (for instance, data inclusions, contract options, customisation, bundling and multi-product offerings, speed and service performance and reliability) for retail customers compared to a future in which TPG is a standalone fourth MNO. The proposed merger will limit the market to three MNOs for the foreseeable future by removing TPG as a new entrant.
114. In particular, the ACCC is considering the likely extent and nature of the competitive constraint that TPG would impose in the absence of the proposed merger, having regard to the more limited geographic coverage of its network but also its likely pricing strategy.
115. The ACCC is also considering the counter argument, that the proposed merger would create an effective competitor that would impose a stronger constraint on Telstra and Optus. This is based on the complementarity of the merger parties' assets and potential efficiencies generated by the proposed merger that may enable the merged entity to increase and accelerate its infrastructure investment compared to a standalone TPG and standalone Vodafone.

Current state of competition for mobile services

116. There are currently three MNOs in Australia: Telstra, Optus and Vodafone. All three MNOs are vertically integrated and provide both wholesale and retail mobile services. National retail market shares for consumer mobile phone services by service provider are set out in the figure and table below. This is based on data from the ACCC's Communications Sector Market Study – Final Report.

Figure 1: Retail mobile services market shares for consumer mobile phone services by service provider in 2016

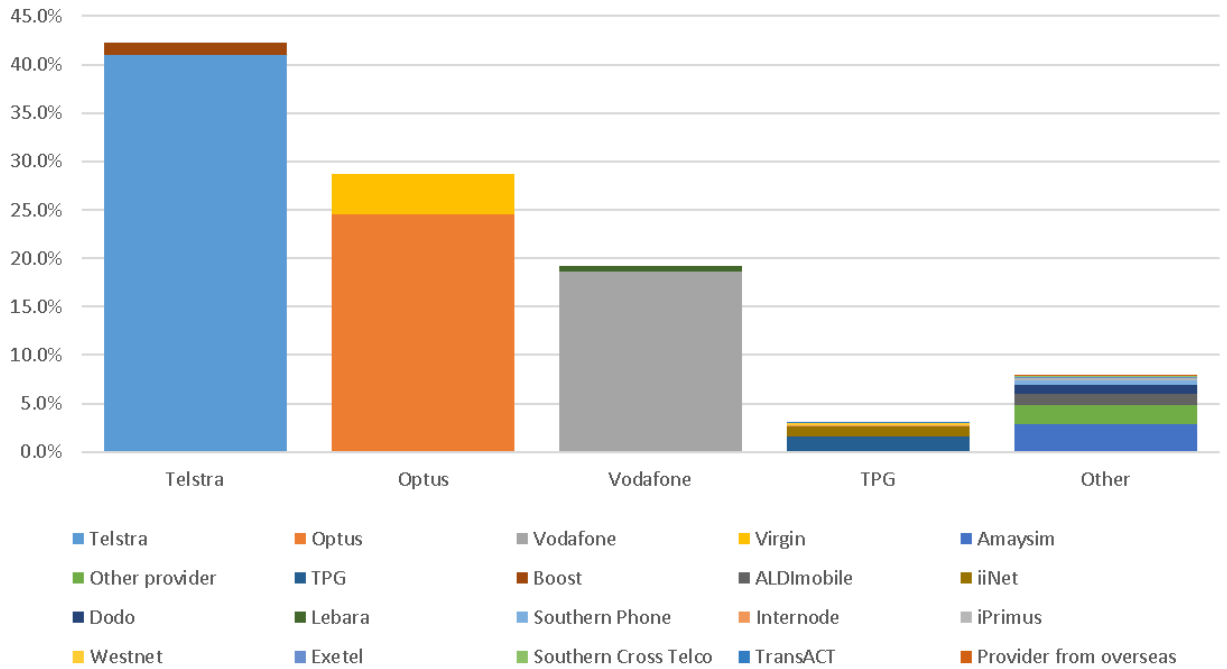


Table 1: Retail mobile services market shares for consumer mobile phone services by service provider in 2016

Entity	Market share
Telstra (including Boost)	44%
Optus (including Virgin)	29%
Vodafone (Including Lebara)	19%
TPG (iiNet, Internode, Westnet and TransACT)	3%
Other (including Amaysim, ALDImobile, Southern Cross Telco, Southern Phone, Exetel, Dodo, iPrimus other providers and small providers from overseas)	8%

Source: Data from the ACCC’s Communications Sector Market Study – Final Report

117. The ACCC understands that market shares for retail mobile phone services have remained relatively stable over recent years in what the ACCC considers to be a highly concentrated market.
118. The ACCC stated in its 2017 Domestic Mobile Roaming Declaration Inquiry that the market for retail mobile services in Australia is for similar but differentiated products. MNOs compete on factors such as price, network coverage, network quality, bundles and content inclusions. There are also differences in the geographic coverage of the three MNO networks. Telstra claims to reach 99.3 per cent of the population, followed by Optus that claims to reach 98.5 per cent and Vodafone has claimed to reach 97 per cent (including its roaming agreement with Optus).
119. In terms of geographic coverage, Telstra’s network has the largest coverage footprint, at over 2.4 million square kilometres. Optus is the second largest, covering around one million square kilometres and Vodafone has the least geographic coverage at around 600,000 square kilometres.⁶ The ACCC does not consider MNOs or new entrants need to have the same geographic coverage to compete effectively in the mobiles market.⁷
120. As discussed above in the ‘Industry Background’ section, there are also over 90 MVNOs that acquire wholesale end-to-end mobile services from one of the MNOs and resell the mobile service under their own retail brand.⁸ MVNOs tend to differentiate their retail offerings on price, bundles, service quality and network coverage.
121. Consistent with previous ACCC consideration, the ACCC considers MVNOs provide a limited constraint on the MNOs, particularly as they rely on purchasing wholesale end-to-end mobile services from MNOs. However, the ACCC is considering whether MVNOs provide a level of competitive constraint on MNOs by targeting niche groups of customers that may not be serviced by the MNOs, including pre-paid low priced plans with large data inclusions.

Barriers to entry and expansion

122. The ACCC considers that there are high barriers to entry in establishing a mobile network and expanding as an MNO. Outside of TPG’s entry into mobile services, the ACCC considers there is unlikely to be a new MNO entrant with the scale and scope to effectively constrain the existing MNOs in the foreseeable future.
123. The significant barriers to establishing a mobile network include:
- Access to and cost of the necessary spectrum
 - Significant costs of a network rollout, which are largely sunk
 - Physical network deployment, including gaining access to sensitive sites subject to planning laws

⁶ ACCC, ‘Domestic mobile roaming declaration inquiry – final report’, October 2017, p. 5.

⁷ ACCC, ‘Domestic mobile roaming declaration inquiry – final report’, October 2017, p. 39.

⁸ ACCC, ‘Communications Sector Market Study – final report’, April 2018, p. 56.

- Obtaining a customer base of sufficient size
- Brand reputation

124. As is discussed below, TPG does not face many of these barriers compared to other potential entrants. It already has spectrum, a well-known brand, significant infrastructure and a large customer base to whom it can cross-promote.

Removal of TPG as a potential effective competitor for mobile services

125. TPG is in the process of rolling out its own mobile network to become Australia's fourth MNO. According to TPG's 2018 half year results presentation on 20 March 2018, TPG's mobile rollout was well underway with sites installed in Sydney and Melbourne. It also stated that small cell site access agreements are now substantially complete and that "high density of small cell sites and deployment of Cloud RAN [radio access network] will provide a platform for 5G services".⁹ After the proposed merger was publicly announced in August 2018, TPG's 2018 full year results presentation on 18 September 2018 stated the small cell site rollout is continuing and that "TPG's small cell network would be complementary to VHA's mobile network".¹⁰
126. The ACCC is concerned that the removal of TPG as an MNO would likely lead to the loss of a significant competitor in the supply of retail mobile services, which is a concentrated market. In addition, TPG is likely to be an innovative and low price competitor. The ACCC considers the removal of TPG as an MNO may lessen the incentive for the existing MNOs to compete vigorously since the market will be more concentrated.
127. Relative to any other potential new entrant, the ACCC considers TPG has already overcome some entry barriers and is better-placed than any other potential new entrant to successfully establish a mobile network and offer competitive mobile services, through its ability to leverage its extensive retail fixed broadband customer base and well-recognised brand name, as well as its existing infrastructure and spectrum holdings. TPG's media release dated 9 May 2018 states, "*TPG will be sending out invitations to persons who express interest, with priority being given to existing TPG, iiNet and Internode broadband customers*".¹¹ The ACCC considers that it is unlikely other mobile service providers, such as MVNOs or potential new entrants, will have the necessary size and scope to become an effective MNO in the foreseeable future.
128. TPG intends to spend \$600 million on a mobile network rollout over three years to achieve 80 per cent population coverage.¹² The network is expected to cover densely populated areas with approximately 2,000 to 2,500 sites plus small cell sites.¹³ The ACCC understands TPG's mobile network will initially focus on

⁹ <https://www.tpg.com.au/about/pdfs/TPMHY18Presentationv9ASX.pdf?v=1.7>.

¹⁰ <https://www.tpg.com.au/about/pdfs/TPMFY18Presentationv6.pdf>

¹¹ TPG, *TPG to offer Free Unlimited Mobile Data plan on its Brand New Australian Mobile Network*, 9 May 2018, <https://www.tpg.com.au/about/media.php>.

¹² ASX, *TPG Telecom acquires 700MHz spectrum in Australia; launches \$400 entitlement offer*, 12 April 2017, <https://www.asx.com.au/asxpdf/20170412/pdf/43hgrdhpfm7jq0.pdf>.

¹³ TPG investor presentation, *700MHz spectrum auction success and entitlement offer*, 12 April 2017, https://www.tpg.com.au/about/pdfs/TPG_700MHz_Spectrum%20Acquisition_Investor_Presentation.pdf.

supplying services in CBD areas including Sydney, Melbourne, Adelaide, Canberra and Brisbane.

129. TPG also spent \$1.26 billion¹⁴ on 2 x 10 MHz of the 700 MHz spectrum (metropolitan and regional) auctioned by the ACMA in April 2017 for its intended 4G mobile network. In addition to its 700 MHz spectrum, TPG holds some 1800 MHz spectrum in regional areas and 2 x 10 MHz of 2.5 GHz spectrum in metropolitan and regional areas. It was announced on 10 December 2018 that, through its JV with Vodafone, TPG had acquired 3.6 GHz spectrum that can be used for its 4G network and for deploying 5G mobile services.
130. Market inquiries have provided mixed feedback as to the likely use and capability of TPG's mobile network. Some market participants consider TPG will build a viable mobile network that will compete aggressively against other MNOs.
131. Some market participants view TPG's acquisition of spectrum and network rollout as geared more towards offering a fixed wireless service that would compete more directly with the NBN rather than traditional mobile phone services. TPG has previously stated "... *our mobile strategy will be complementary to our ongoing fixed line business, with the ability to bundle mobile and fixed services expected to have a beneficial effect on our already low fixed services customer churn*".¹⁵ The ACCC is continuing to consider how the TPG mobile network is likely to operate and compete in the supply of retail mobile services. As part of this, the ACCC is considering the extent to which it is necessary to offer both a mobile voice and data service to compete effectively in retail mobile services.
132. Some market feedback has indicated TPG's mobile network would not effectively constrain Telstra and Optus due to its limited geographic coverage. In particular, market feedback indicated consumers on TPG's mobile network would need to complement the service with an existing MNO that offers additional coverage, which therefore limits the competitive constraint TPG can exert on existing MNOs.
133. The ACCC has previously found that differences in geographic coverage are not necessarily an impediment to effective competition between networks.¹⁶ Geographic coverage is only one aspect of mobile competition. MNOs also compete on price, data inclusions and network quality in areas they service.
134. The ACCC is considering the extent to which TPG's initial data-only plans will be competitive in the market. In this context, a relevant comparison may be made with Telstra initially offering data-only mobile broadband services under its Belong brand.
135. The ACCC considers TPG has a strong history of adopting aggressive pricing strategies and competing aggressively for market share as an MVNO in retail

¹⁴ The price paid by TPG was equivalent to \$2.75/MHz/pop. Vodafone secured the remaining 2 x 5 MHz 700 MHz spectrum for \$285,907,000, at the reserve price of \$1.25/MHz/pop. (ACMA, *Sold! AMCA completes high-value spectrum auction*, <https://www.acma.gov.au/theACMA/Newsroom/Newsroom/Media-releases/sold-acma-completes-high-value-spectrum-auction>).

¹⁵ ASX, *TPG Telecom acquires 700MHz spectrum in Australia; launches \$400 entitlement offer*, 12 April 2017, <https://www.asx.com.au/asxpdf/20170412/pdf/43hgrdhpfm7iq0.pdf>.

¹⁶ ACCC, *2017 Domestic Mobile Roaming Declaration Inquiry*, pp.2-3, 47.

mobile services. For example, in April 2018 TPG refreshed its mobile phone plans to offer 65 per cent more data and a \$0 SIM fee.¹⁷ TPG stated, “*Removing SIM fee and packing more data into our existing mobile products are exciting news, but we will be even more aggressive when our own mobile network is ready*”.¹⁸

136. The ACCC considers it likely TPG will adopt a similar strategy for retail mobile services on its own network and price aggressively, potentially offering significantly cheaper plans than other MNOs with large data allowances.
137. This view is consistent with market feedback and TPG’s announcement that it expects to begin trials of its 4G network in certain suburbs and will offer this trial service for free with unlimited data.¹⁹ TPG’s media release states, “*The mobile plan to be made available to the first TPG customers will be **absolutely free** for the first 6 months and is expected to be available in Q3-Q4 2018. The plan will come with **Unlimited Data**, with the first 1 GB of data every day supplied at 4G LTE speeds, after which speed will be capped at 1 Mbps for the remainder of the day*”.²⁰ TPG also announced customers choosing to continue with the plan after the 6-month free period will pay a monthly charge of \$9.99.²¹
138. The ACCC is considering the impact of TPG’s likely pricing strategy in the short and long term on the supply of retail mobile services and its potential competitive constraint on other MNOs. The ACCC is also considering the impact of TPG on non-price elements of retail mobile services competition, such as inclusions and customer service.
139. The ACCC recognises that MNOs require ongoing investment in their mobile network to continually increase service quality. Telstra and Optus are in the process of rolling out infrastructure to offer 5G mobile services. The ACCC is considering whether, absent the merger, TPG would have the capacity to continually invest in its mobile network in a timely way.

ACCC’s preliminary views

140. In summary, the ACCC is concerned that the removal of TPG as a significant competitor for mobile services will result in higher prices and lower quality for retail mobile services, such as data inclusions, contract options, customisation, bundling and multi-product offerings, speed and service performance and reliability.

¹⁷ [TPG, TPG’s Mobile plans refresh – 65% more data and \\$0 SIM fee, 19 April 2018](https://www.tpg.com.au/about_pdfs/TPG%20Media%20Release%20-%20New%20mobile%20plans%20April%202018.pdf)
https://www.tpg.com.au/about_pdfs/TPG%20Media%20Release%20-%20New%20mobile%20plans%20April%202018.pdf.

¹⁸ [TPG, TPG’s Mobile plans refresh – 65% more data and \\$0 SIM fee, 19 April 2018](https://www.tpg.com.au/about_pdfs/TPG%20Media%20Release%20-%20New%20mobile%20plans%20April%202018.pdf)
https://www.tpg.com.au/about_pdfs/TPG%20Media%20Release%20-%20New%20mobile%20plans%20April%202018.pdf.

¹⁹ A list of sites planned for initial coverage can be found in TPG’s media release:
<https://www.tpg.com.au/about/media.php>. Initial mobile network coverage will include CBD areas and numerous surrounding suburbs in Sydney, Melbourne, Adelaide, Canberra and Brisbane.

²⁰ TPG, *TPG to offer Free Unlimited Mobile Data plan on its Brand New Australian Mobile Network*, 9 May 2018,
<https://www.tpg.com.au/about/media.php> (emphasis as in the original).

²¹ TPG, *TPG to offer Free Unlimited Mobile Data plan on its Brand New Australian Mobile Network*, 9 May 2018,
<https://www.tpg.com.au/about/media.php>.

The ACCC invites comments from market participants on its concerns in relation to retail mobile services. In particular, market participants may wish to comment on the following:

- the different factors MNOs compete with each other on (including price, geographic coverage and other non-price aspects) and the most important aspects of competition
- the extent to which MVNOs compete with MNOs (including targeting any particular market or customer segment) and the main forms of competition MVNOs provide (including price and non-price aspects)
- the types of challenges potential entrants face when establishing a mobile network, including the most significant costs involved
- the likelihood of a potential entrant becoming an MNO, excluding TPG's entry. In answering this question, you may wish to identify any likely new entrant and how large a MVNO would need to be before they could establish their own network.
- the current level of competition between the existing MNOs and how the proposed merger and increase in concentration would impact this
- the extent to which TPG's mobile network will increase competition in the supply of retail mobile services, including the impact on price and non-price features (such as service inclusions, network quality, innovation, and customer service) and whether TPG's entry is likely to disrupt uniform national pricing
- the extent to which data-only mobile offerings (mobile broadband services), such as Belong's initial offering, are a credible alternative to mobile phone services
- the extent to which TPG will be an effective competitive constraint on other MNOs if it is slow to roll out 5G services or does not roll out 5G services at all

Network coverage

- the extent to which Vodafone's mobile network is competitive with mobile networks operated by Telstra and Optus, given differences in geographic coverage
- the importance of, and extent to which there are, challenges for TPG securing a domestic roaming agreement for regions not covered by its mobile network.

Issue that may raise concerns: loss of potential competition for wholesale mobile services

141. The ACCC’s preliminary view is that the proposed merger may substantially lessen competition by removing TPG as a potential fourth wholesale mobile services provider for MVNOs. This would result in increased prices and decreased service levels for MVNOs, with a flow on effect to retail customers.
142. Currently, Telstra, Optus and Vodafone are the only providers of wholesale end-to-end mobile services. As at 2016, Optus had the largest share of the wholesale MVNO market, with Telstra and Vodafone having significantly smaller shares of the wholesale MVNO market compared to Optus. See the below table and figure for a further breakdown of shares.

Figure 2: Mobile network operator market shares

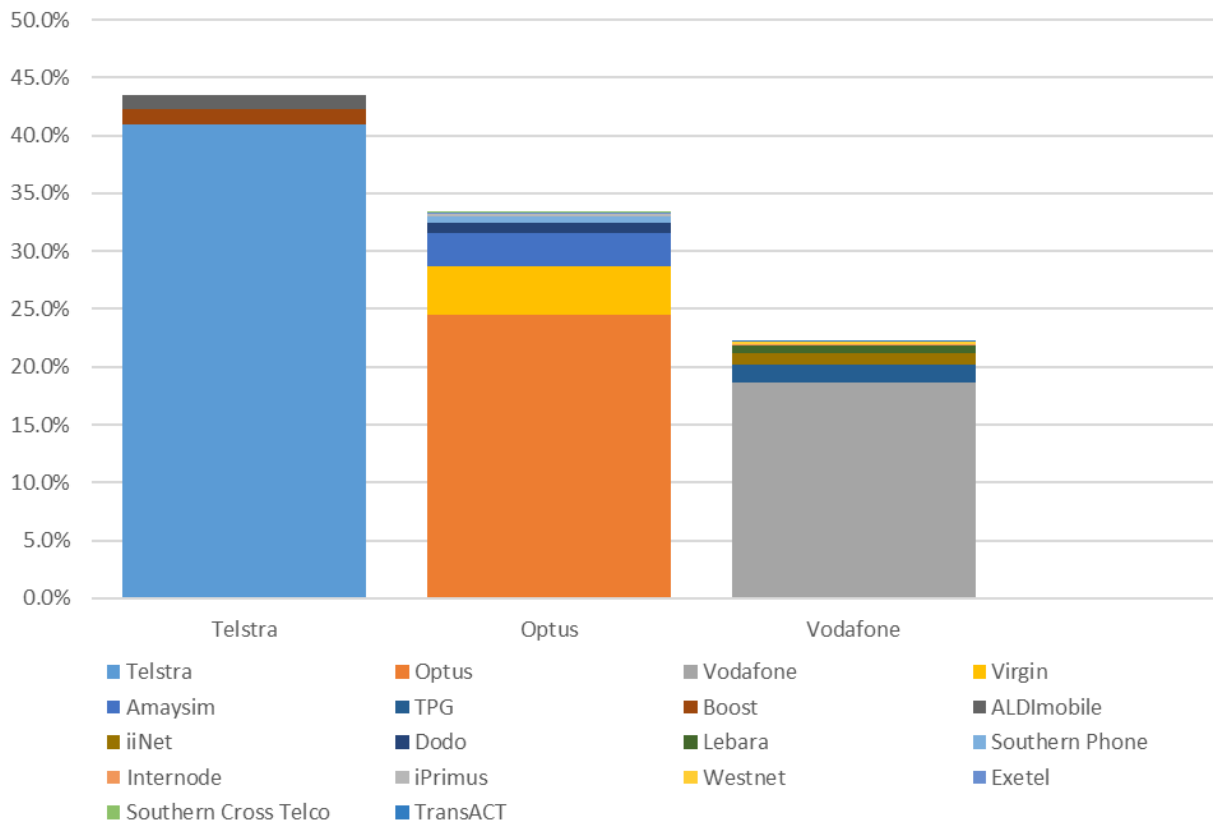


Table 2: Market shares of wholesale mobile services by mobile network operator in 2016

Mobile network	Market share
Telstra (includes Boost and ALDI mobile)	44%
Optus (includes Virgin, Amaysim, Southern Phone, Dodo, iPrimus, Exetel)	33%
Vodafone (includes Lebara, TPG, Internode, Westnet, iinet and TransACT)	22%

Source: Data from the ACCC's Communications Sector Market Study – Final Report

143. The ACCC considers the rollout of TPG's mobile network may provide more competition in the market for wholesale mobile services.
144. Wholesale mobile services are currently unregulated and market feedback has indicated that MVNOs are in a weak position and are heavily reliant on MNOs to offer reasonable prices and access terms.
145. Market feedback has indicated that TPG could offer another source of wholesale mobile services. In the context of TPG's intended 80 per cent population coverage and data only mobile network, market feedback indicated that MVNOs would consider TPG's network to be an attractive option and that it would be possible for them to use TPG's network in some areas and use another MNO in other areas.
146. Irrespective of whether TPG offered wholesale mobile services, market feedback indicated that its entry as an MNO would have an indirect impact on wholesale services as it would create additional network capacity, which MNOs would have a commercial incentive to offer to MVNOs. Some market participants have indicated the prospective entry of TPG as an MNO has already assisted MVNOs in obtaining better prices and deals from existing MNOs.
147. Other market participants are sceptical of whether TPG's mobile network will provide enough coverage to offer MVNOs a viable product and provide a competitive constraint on existing MNOs. The ACCC is also considering whether, in the absence of TPG offering wholesale mobile services, its presence at the retail level would exert a sufficient competitive constraint at the wholesale level.
148. The ACCC is continuing to investigate the potential impact on the wholesale mobile services market and the competitive constraint MVNOs impose on MNOs in the retail mobile services market.

ACCC's preliminary views

149. In summary, the ACCC is concerned that the removal of TPG as a potential effective competitor for mobile services may result in higher prices and more restrictive conditions for wholesale mobile services, than there would be in the absence of the proposed merger

The ACCC invites comments from market participants on its concerns in relation to wholesale mobile services. In particular, market participants may wish to comment on the following:

- the extent to which MVNOs will be likely to acquire wholesale services from TPG, given its plan to initially offer a data-only mobile services on a network that covers densely populated areas only. In answering this question, you may wish to comment on whether MVNOs would need to enter into a second roaming agreement with another MNO and whether there are any limitations to this (e.g. exclusivity provisions).
- the extent to which TPG's mobile network will increase competition in the supply of wholesale mobile services offered by existing MNOs, including MVNOs' access to these services
- whether TPG taking customers away from MNOs means it is more likely that existing MNOs will have an increased incentive to offer wholesale access to their networks to MVNOs.

Issue that may raise concerns: the loss of competition for retail fixed broadband services

150. The ACCC is considering whether the proposed merger will substantially lessen competition by removing Vodafone as a future effective competitor for retail fixed broadband services. This may result in higher prices or poorer quality of services (including less data inclusions, slower connection speeds, less attractive multi-service bundles, and lower levels of customisation) for retail fixed broadband than would have been the case without the proposed merger.

Current state of competition for retail fixed broadband services

151. The ACCC considers retail fixed broadband services to be a highly concentrated market characterised by few large service providers with a large number of smaller providers.
152. The four major providers in the supply of retail fixed broadband services are Telstra, Optus, TPG and Vocus. Smaller providers include Aussie Broadband, Exetel, MyRepublic, Foxtel, Southern Phone, Active8me, Skymesh and MyNetFone.
153. Fixed broadband services can be delivered using a variety of networks, as discussed in the industry background section. In Australia, the majority of retail fixed broadband services are delivered on legacy copper and HFC networks and on the NBN.
154. The legacy copper and HFC networks are currently being decommissioned and replaced with the NBN. The supply of retail fixed broadband services is transitioning to the NBN. There are currently around 177 NBN retail service providers.
155. The market shares for retail fixed broadband services in 2016 are set out in **Table 3** and **Figure 3**. The ACCC understands market shares in retail fixed broadband have been relatively stable over recent years. Table 3 shows that the four major providers account for approximately 94 per cent of retail services on the NBN compared to 97 per cent on legacy networks.²²

²² ACCC, 'Communications Sector Market Study – final report', April 2018, p. 35.

Figure 3: Overall market shares for retail fixed broadband services in 2016

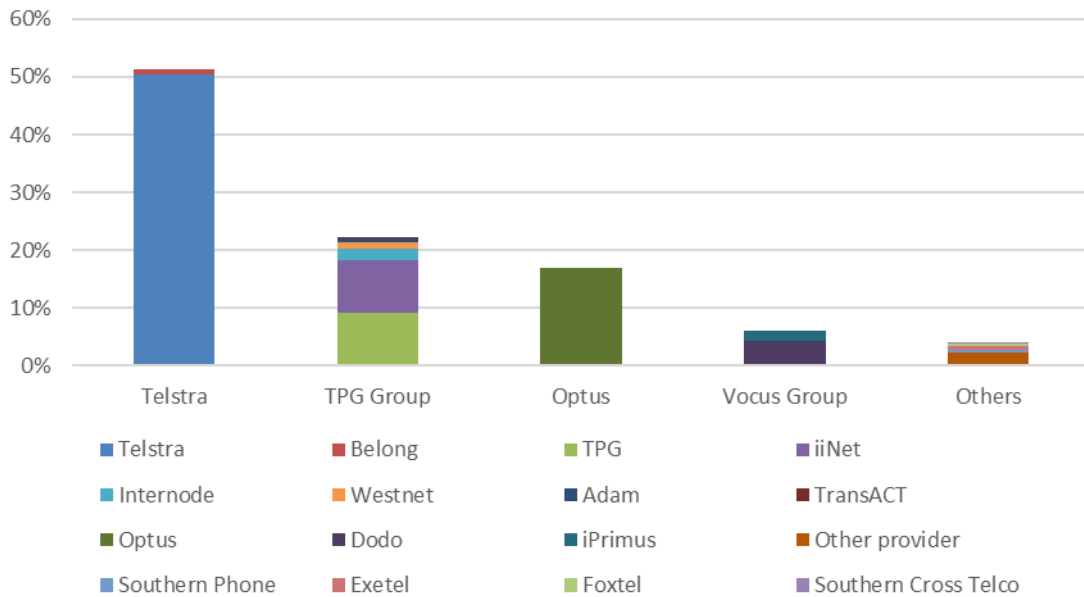


Table 3: Market shares for retail fixed broadband services in 2016

Retail service provider	Legacy services	NBN services	Overall services
Telstra (including Belong)	51%	51%	51%
TPG Group (including TPG, iiNet and Internode)	22%	22%	22%
Optus	17%	15%	17%
Vocus Group (including Dodo and iPrimus)	6%	6%	6%
Others	3%	6%	4%

Source: Data from the ACCC’s Communications Sector Market Study – Final Report

156. The ACCC Communications Sector Market Study Final Report (Market Study) found there to be both price and non-price competition in the highly concentrated market for retail fixed broadband services. It found that there is currently strong price competition, particularly for services on the NBN, with most providers offering plans at similar price points (between \$40 to \$80 per month) across different NBN speed tiers (including 12, 25, 50 and 100 Mbps). However, the

Market Study also noted that the NBN network is still being rolled out and is in a key migration phase, so the current price competition may not be sustained in the long term.²³

157. Some providers seek to differentiate their offerings on non-price aspects, including customisation options, bundling with entertainment and/or energy services and multi-service offerings, such as retail fixed broadband and mobile services.
158. TPG also supplies retail fixed broadband services using its own FTTB network. TPG's FTTB network enables download speeds up to 100Mbps, and competes with the NBN and other non-NBN networks. TPG offers its retail FTTB broadband services at lower prices compared to its NBN retail fixed broadband services.²⁴ We note that TPG's FTTB services are typically only available in a limited number of apartment buildings in metropolitan areas.²⁵

²³ ACCC, 'Communications Sector Market Study – final report', April 2018, p. 24

²⁴ TPG, [NBN plans](#) and [FTTB Plans](#), viewed 20 November 2018.

²⁵ ACCC, 'Communications Sector Market Study – final report', April 2018, p. 34.

Barriers to entry and expansion

159. The ACCC considers there are high barriers to expansion in the retail fixed broadband market, including the ability to compete effectively with the major service providers.
160. The transition to the NBN has reduced the barriers for new entrants (compared to legacy networks), and seen a significant increase in the number of service providers in the retail fixed broadband market. However, Telstra, TPG, Optus and, to a lesser extent, Vocus, still account for the majority of retail customers on the NBN.
161. Similar to retail mobile services, the ACCC considers brand recognition is key in being able to grow a substantial customer base. The ACCC is continuing to consider the extent to which brand recognition is a barrier for new entrants achieving a sufficient customer base and competing with the major providers.
162. The retail fixed broadband market is also characterised by customer stickiness and limited churn between service providers. For example, as reported in the Market Study, in 2016 only seven per cent of Australian households switched their fixed broadband service provider in the previous 12 months. When consumers did switch, their movement was predominantly between the large service providers.²⁶ As a result, it may be difficult for new entrants or smaller service providers to attract customers and grow their market share.
163. The ACCC understands that NBN wholesale access prices may also act as a barrier to expansion given the price model benefits those with economies of scale. As a result, the major providers may have a competitive advantage in the supply of retail fixed broadband services on the NBN.
164. Service providers can either purchase NBN wholesale access services directly from NBN Co, or they can purchase NBN wholesale aggregation services from the large service providers, Telstra, Optus, TPG and Vocus, as well as MyNetFone Group and Aussie Broadband.²⁷
165. The ACCC considers that service providers with a direct connection to the NBN have a greater ability to supply differentiated services, giving them a competitive advantage.²⁸ Furthermore, the ACCC understands that the margins available to NBN resellers who acquire wholesale aggregation services are typically very low. In this regard, Amaysim, a purchaser of NBN wholesale aggregation services, has recently exited the retail fixed broadband market after 18 months. The ACCC is continuing to consider the potential barriers to entry and expansion in the market for retail fixed broadband services.
166. The ACCC considers Vodafone is better-placed to overcome the barriers to expansion than other new entrants or smaller providers due to its substantial existing retail mobile customer base, high level of brand recognition, established call centres and billing capabilities, nationwide retail store presence, and the

²⁶ ACCC, 'Communications Sector Market Study – final report', April 2018, p. 120.

²⁷ ACCC, 'Communications Sector Market Study – final report', April 2018, p. 55

²⁸ ACCC, 'Communications Sector Market Study – final report', April 2018, p. 57

ability to differentiate its offerings, such as through its hybrid NBN modem with 4G mobile back up. This is discussed further below.

Removal of Vodafone as a potential effective competitor for retail fixed broadband services

167. The ACCC is considering whether the proposed merger would likely lead to the loss of a significant potential competitor for retail fixed broadband services. The ACCC is considering whether, in the absence of the proposed merger, Vodafone will continue to expand its presence in the supply of retail fixed broadband services, and therefore become an effective competitive constraint on the four major providers. In particular, the ACCC is considering whether Vodafone has the ability to become a long-term viable, effective and sustainable retail fixed broadband (and mobile) service provider.
168. As noted above, on 4 December 2017, Vodafone announced its first NBN retail fixed broadband offering.²⁹ The ACCC understand that as at 13 August 2018, Vodafone was connected to 91 of the 121 NBN Points of Interconnection and purchases access directly from NBN Co, offering retail NBN broadband services in metropolitan areas including Sydney, Canberra, Melbourne, Geelong, Wollongong and Newcastle. Vodafone has started to grow its NBN subscriber base and appears to be well-positioned to gain market share as the NBN rollout continues.
169. The ACCC is considering whether Vodafone will compete effectively on price in the market for retail fixed broadband services. In August 2018, Vodafone lowered its retail fixed broadband prices in line with TPG's at the cheaper end of the retail fixed broadband services market. The ACCC has observed that Vodafone has been aggressive in its pricing and marketing strategies to try to grow its retail fixed broadband customer base on the NBN.
170. For example, when Vodafone launched its NBN product, it offered three months' free plan fees for eligible customers connecting to 24 month plans.³⁰ This illustrates that Vodafone has adopted an aggressive competitive strategy to seek to win customers from competitors and establish a sustainable retail fixed broadband customer base. The ACCC is continuing to consider the level of competitive constraint Vodafone will place on the major providers in the retail fixed broadband market.
171. Vodafone is able to differentiate its product from most other retail fixed broadband providers because it is also an MNO. In particular, Vodafone has the ability to provide competitive multi-service fixed and mobile bundles unlike most of its competitors. Vodafone is offering savings of 15 to 20 per cent when customers bundle eligible plans under one account. For example, bundling two plans will save a customer 5 per cent on the combined bundle price. The ACCC is continuing to consider the importance of fixed and mobile bundles or discounts, and their impact on the competitive dynamics in the retail fixed broadband market.

²⁹ Vodafone, *Vodafone nbn launches in Sydney, Canberra, Melbourne, Geelong & Newcastle*, 4 December 2017, <https://www.vodafone.com.au/media/vodafone-nbn-launches>.

³⁰ Vodafone, *Vodafone nbn launches in Sydney, Canberra, Melbourne, Geelong & Newcastle*, 4 December 2017, <https://www.vodafone.com.au/media/vodafone-nbn-launches>.

172. The ACCC is considering whether Vodafone will act as an effective competitor in the retail fixed broadband services market. In Vodafone’s NBN announcement it stated: “*Vodafone nbn™ is taking the lead in the customer experience, offering unlimited broadband data and a unique set of initiatives designed to make the nbn™ process simple and fair*”.³¹ The ACCC considers Vodafone has already shown its potential competitive behaviour by offering a hybrid modem for its NBN product that switches to Vodafone’s 4G network as back up when there are NBN outages. Vodafone’s Chief Executive Officer, Inaki Berroeta, has stated that he is “*proud of the Vodafone nbn™ product which will deliver a converged internet experience*”.³² Telstra also offers a similar hybrid modem with 4G mobile backup.
173. Vodafone is also well-placed to offer content and entertainment services in conjunction with its retail fixed broadband offerings. In March 2018, Vodafone announced a partnership with Netflix and unveiled Vodafone TV, its first-ever streaming media device.³³ Vodafone offered customers a complimentary pre-paid 12-month standard subscription to Netflix on two of its NBN plans.
174. The ACCC considers Vodafone is in a better position compared to other new entrants to expand its retail fixed broadband market share to compete with the established larger providers. As noted above, Vodafone is a global, well-recognised brand. Vodafone has a strong bricks and mortar retail presence for mobile services that it can leverage in expanding its retail fixed broadband presence. Vodafone also has a substantial mobile customer base that it is able to cross-sell retail fixed broadband services.
175. Market feedback has indicated Vodafone’s and Telstra’s innovative 4G backup service offer for their retail NBN services has given them a competitive advantage. Market feedback has also identified Vodafone’s ability to offer multi-service bundles on its own network to be a competitive advantage over other competitors as it cannot be replicated by other providers, apart from Telstra and Optus to date.
176. The ACCC is continuing to consider whether Vodafone is likely to be an effective competitor and therefore able to provide an effective constraint on the major retail fixed broadband service providers going forward.

ACCC’s preliminary views

177. In summary, the ACCC is considering whether the removal of Vodafone as a potential effective competitor in the supply of retail fixed broadband services may result in:
- higher prices for retail fixed broadband services, and/or
 - lower quality services including lower data inclusions or poorer performance.

³¹ Vodafone, *Vodafone nbn launches in Sydney, Canberra, Melbourne, Geelong & Newcastle*, 4 December 2017, <https://www.vodafone.com.au/media/vodafone-nbn-launches>.

³² Vodafone, *Vodafone nbn launches in Sydney, Canberra, Melbourne, Geelong & Newcastle*, 4 December 2017, <https://www.vodafone.com.au/media/vodafone-nbn-launches>.

³³ Vodafone, *Vodafone hits play with Netflix and fast forwards rollout of nbn*, 28 March 2018. <https://www.vodafone.com.au/media/vodafone-hits-play-with-netflix-and-fast-forwards-rollout-of-nbn>.

The ACCC invites comments from market participants on its concerns in relation to the loss of Vodafone as the fifth major service provider in the market for retail fixed broadband services. In particular, market participants may wish to comment on the following:

- the key aspects of their offerings on which retail fixed broadband service providers compete (for example, but not limited to, price, internet speed, bricks and mortar stores, brand recognition, ability to provide multi-service bundles etc.)
- how Vodafone is placed with regard to the key competitive factors identified above
- whether the key competitive factors in competing in the market for retail fixed broadband services are likely to change in the near future
- the key barriers to entry or expansion
- whether the NBN has reduced the barriers to entry or expansion
- the most effective ways, and the ability of NBN resellers, to provide differentiated offerings in the retail fixed broadband services market in light of the current wholesale pricing structure and retail fixed broadband environment. Please indicate in your response whether this differs according to whether NBN resellers acquire NBN access services directly from NBN Co or from a supplier of NBN wholesale aggregation services.

Issue that may raise concerns: loss of competitive tension in a market for retail home broadband services in the longer term

178. The ACCC is concerned that the proposed merger may substantially lessen competition in a future market for retail home broadband services, particularly after the rollout of 5G mobile technology.
179. The ACCC's Communications Sector Market Study noted that there is currently some substitution between fixed and mobile broadband services, typically amongst consumers who require small data inclusions. At present, consumers typically have a fixed broadband service as their primary home broadband service as these services are considered to be more reliable and better value for money with larger data inclusions. Some consumers may supplement this primary service with a mobile broadband service.
180. In the future, particularly after the roll-out of 5G mobile technology, mobile networks are likely to be increasingly used to supply retail home broadband services. 5G mobile networks will be able to offer faster speeds than existing legacy copper fixed line networks and comparable speeds to next generation fibre networks, such as the NBN. As a result, retail fixed broadband service providers and mobile service providers, particularly the MNOs, may increasingly compete for the same consumers of home broadband services.
181. There is significant structural change with the transition from Telstra's copper network to the NBN. In the ACCC's Communications Sector Market Study, industry stakeholders raised a number of issues in relation to the NBN, including

concerns about the cost of NBN wholesale access services, and their long term commercial viability.

182. As a result of these concerns, the ACCC understands that some retail fixed broadband service providers are looking at different ways to deliver broadband services to homes, rather than using the NBN.
183. In particular, those service providers who have their own mobile network will be able to offer consumers the choice of a fixed or mobile broadband service that can be used in the home. These service providers may have greater incentives to steer their customers towards a mobile broadband service (rather than an NBN service) if it is more cost effective to do so. In turn, as more attractive mobile broadband services become available, there may be an acceleration of consumer substitution from fixed to mobile broadband services.
184. The ACCC is considering whether these technological advancements, changing consumer preferences and NBN wholesale access prices could change the competitive dynamics such that the relevant product market in the next 3 to 5 years could comprise a market for the supply of home broadband services (over either a mobile network, or a fixed network such as the NBN).
185. The potential for substitution from fixed to mobile broadband for home broadband services will likely be greater for consumers in metropolitan areas, as they may have better access to 5G mobile services. The ACCC is therefore considering whether the geographic scope of the potential relevant market for the supply of home broadband services should be limited to metropolitan areas.
186. The ACCC considers that the barriers to entry into the home broadband services market will be high, as they are broadly similar to those for mobile and fixed broadband services markets (as outlined in paragraphs 122-124 and 159-166 above). However, they may differ according to the network used to provide the home broadband service.
187. The ACCC considers that the barriers to entry and expansion currently faced by prospective MNOs are unlikely to change significantly once 5G mobile technology becomes widely available.
188. Barriers to entry may increase for new MNO entrants seeking to deploy a 5G mobile network as they will need to build a dense network of small cell infrastructure to achieve reasonable coverage and support high data traffic. Dense small cell networks are costly and community opposition to small cell rollout can cause delays, additional costs, and potentially damage brand reputation.
189. In a future retail home broadband services market, MNOs will increasingly compete against retail fixed broadband service providers to deliver home broadband services to consumers.
190. The ACCC considers that absent the merger, the likely key competitors in any home broadband services market would be Telstra, Optus, Vodafone, TPG, and Vocus. Smaller fixed retail service providers and MVNOs are also likely to compete in this market, however, consistent with previous considerations and current market dynamics, the ACCC's preliminary view is that these service providers may not provide a significant competitive constraint on the larger service providers.

191. In a future home broadband services market, Vocus will be the only key market participant without its own mobile network. Vocus will likely continue to offer NBN broadband services.
192. The ACCC is considering whether, absent the proposed merger, Vodafone and TPG would be strong competitors in a future retail home broadband services market.

The ACCC invites comments from market participants on the above issues. In particular, market participants may wish to comment on the following:

- the extent to which mobile broadband services can currently be used for retail home broadband services instead of fixed broadband service
- whether there are any barriers to significantly increasing the amount of data on the 4G network that would limit its effectiveness for widespread use for home broadband services
- whether or not the rollout of 5G mobile technology will lead to an increase in mobile broadband being used for home broadband services instead of fixed broadband services
- how the barriers to entry to a market for the supply of home broadband services are likely to compare to current barriers to entry to fixed broadband and mobile broadband services markets
- the ability of telecommunications providers without their own mobile network to compete effectively in a market for home broadband services
- whether any impact of the rollout of 5G on the market for home broadband services is likely to be confined to metropolitan areas, or extend to regional areas.

ACCC's future steps

193. As noted above, the ACCC now seeks submissions from market participants on each of the issues identified in this Statement of Issues and on any other issue that may be relevant to the ACCC's assessment of this matter. Submissions are to be received by the ACCC no later than 5pm on 18 January 2019 and should be emailed to TPG-Vodafone-Mergers@acc.gov.au.
194. The ACCC will finalise its view on this matter after it considers submissions invited by this Statement of Issues.
195. The ACCC intends to publicly announce its final view by 28 March 2019. However the anticipated timeline may change in line with the *Informal Merger Review Process Guidelines*. A Public Competition Assessment for the purpose of explaining the ACCC's final view may be published following the ACCC's public announcement to explain its final view.